

DIFFERENCE IN SPEED OF NEOINTIMAL PROLIFERATION FOLLOWING SIROLIMUS-ELUTING STENT IMPLANTATION ACCORDING TO CLINICAL AND LESION CHARACTERISTICS

i2 Poster Contributions

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Background: Although there are reports of late neointimal proliferation following drug eluting stent implantation, with discussion of differences according to the type of stent used, there is hardly any mention of differences in neointimal proliferation according to lesion characteristics or clinical characteristics.

Method: Subjects were 72 patients, 82 lesions, who underwent follow-up angiography at 6 months and 12 months after sirolimus-eluting stent (SES) implantation.

Late loss up to 6 months after SES implantation (early late loss) and late loss from 6 months after SES implantation to up to 12 months (late loss at late phase) from quantitative coronary analysis data were comparatively studied according to differences in clinical and lesion characteristics. Calcification of aortic valve was defined by echocardiography, calcification of thoracic aorta was defined by chest x-rays and calcification of coronary artery was defined by angiography.

Results: Late loss at 6 months after SES implantation was 0.31 ± 0.52 mm and late loss from 6 months to 12 months was 0.24 ± 0.57 mm. Results are as shown in the following table.

Conclusion: Neointimal proliferation was prone to occur early after Sirolimus-Eluting Stent implantation in calcification of the coronary artery, thoracic aorta, or aortic valve, and late neointimal proliferation was prone to occur in stent fracture. Bifurcated lesions or elderly patients had hardly no neointimal proliferation in the late stage.

Difference of Late Loss According to Clinical and Lesion Characteristics

	Calcification of the aortic valve (n=23)	No calcification of the aortic valve (n=57)	p value	Calcification of the thoracic aorta (n=23)	No calcification of the thoracic aorta (n=59)	p value	Calcification of coronary artery (n=37)	No calcification of coronary artery (n=45)	p value
Late loss (0-6 months)	0.62±0.48	0.17±0.50	<0.01	0.49±0.49	0.24±0.54	0.05	0.42±0.50	0.21±0.55	0.07
Late loss (6-12 months)	0.29±0.65	0.13±0.40	n.s.	0.29±0.69	0.12±0.36	n.s.	0.17±0.54	0.18±0.39	n.s.
	Stent fracture (n=7)	No stent fracture (n=75)	p value	Age ≥75 years old (n=18)	Age <75 years old (n=64)	p value	Bifurcated lesion (n=14)	No bifurcated lesion (n=68)	p value
Late loss (0-6 months)	0.11±0.32	0.32±0.52	n.s.	0.45±0.52	0.27±0.51	n.s.	0.35±0.42	0.27±0.61	n.s.
Late loss (6-12 months)	0.94±0.85	0.11±0.34	<0.01	0.04±0.45	0.35±0.68	<0.05	0.002±0.29	0.32±0.52	<0.05